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SERIAL NUMBER	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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07/351,179    05/12/89    HAGENBUCH

L    30093

EXAMINER

DIXON, J

ART UNIT

PAPER NUMBER

234

DATE MAILED:

06/19/91

LEYDIG, VOIT & MAYER  
180 NORTH STETSON AVE.  
TWO PRUDENTIAL PLAZA-SUITE 4900  
CHICAGO, IL 60601

This is a communication from the examiner in charge of your application.  
COMMISSIONER OF PATENTS AND TRADEMARKS

☒ This application has been examined    ☒ Responsive to communication filed on 12/28/90    ☐ This action is made final.

A shortened statutory period for response to this action is set to expire 3 month(s), — days from the date of this letter.  
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

**Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:**

- |   |   |
|---|---|
| 1. <input checked="" type="checkbox"/> Notice of References Cited by Examiner, PTO-892. | 2. <input type="checkbox"/> Notice re Patent Drawing, PTO-948.                  |
| 3. <input checked="" type="checkbox"/> Notice of Art Cited by Applicant, PTO-1449.      | 4. <input type="checkbox"/> Notice of Informal Patent Application, Form PTO-152 |
| 5. <input type="checkbox"/> Information on How to Effect Drawing Changes, PTO-1474.     | 6. <input checked="" type="checkbox"/> <u>PTO-413 INTERVIEW SUM.</u>            |

**Part II SUMMARY OF ACTION**

1. ☒ Claims 1-36 are pending in the application.  
Of the above, claims \_\_\_\_\_ are withdrawn from consideration.
2. ☐ Claims \_\_\_\_\_ have been cancelled.
3. ☐ Claims \_\_\_\_\_ are allowed.
4. ☒ Claims 1-9, 11, 12, 15-29 and 31-36 are rejected.
5. ☒ Claims 10, 13, 14 and 30 are objected to.
6. ☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.
7. ☐ This application has been filed with informal drawings under 37 C.F.R. 1.85 which are acceptable for examination purposes.
8. ☐ Formal drawings are required in response to this Office action.
9. ☐ The corrected or substitute drawings have been received on \_\_\_\_\_. Under 37 C.F.R. 1.84 these drawings are ☐ acceptable; ☐ not acceptable (see explanation or Notice re Patent Drawing, PTO-948).
10. ☒ The proposed additional or substitute sheet(s) of drawings, filed on 12/28/90, has (have) been ☒ approved by the examiner; ☐ disapproved by the examiner (see explanation).
11. ☐ The proposed drawing correction, filed \_\_\_\_\_, has been ☐ approved; ☐ disapproved (see explanation).
12. ☐ Acknowledgement is made of the claim for priority under U.S.C. 119. The certified copy has ☐ been received ☐ not been received ☐ been filed in parent application, serial no. \_\_\_\_\_; filed on \_\_\_\_\_.
13. ☐ Since this application appears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.
14. ☐ Other

1. This application has been reconsidered in view of the communication filed Dec. 28, 1990 and Feb. 15, 1991 and the telephone conversation on May 28, 1991.

2. The prior art submitted on Dec. 28, 1990 and Aug. 20, 1990 have been considered to the extent that dates were provided and the dates were before the earliest priority date.

If a later date than the original filing date of the parent is applicable to the instant claimed invention then applicant should indicate this fact.

3. The submission of the terminal disclaimer has obviated the double patenting rejection.

3.1 Claim 33 is rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3.2 As per claim 33, "third means" implies a second means not present.

4. The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

5. Claims 1-9, 11, 12, 15-29 and 31-36 are rejected under 35 U.S.C. § 103 as being unpatentable over (Gamble (508), Miller (084) or Griffiths (GB 2043921)) in view of Juhasz et al (421).

6. As per claim 31, 1, 21-27 and 29, Gamble discloses a mechanism for recording the load, mileage and speed of vehicles. The system is a gear driven mechanism for recording the measured load on a strip chart type medium for subsequent use. The distance and speed of the vehicle would also be stored.

7. Miller disclose a vehicle load monitoring system where a plurality of load cells are used to indicate total load after summing. The value of the load is stored and compared to a threshold value for actuation of an overload alarm. A display device is also present for indication to the operator. It would have been readily apparent to skilled artisans that once the load value is stored (temporarily), it may be retained for an extended period if sufficient memory was available. Miller has recognized (col. 1, lines 42+) the damage to vehicles, roads and public safety due to overloading of the vehicle.

8. Griffiths discloses a vehicle load monitor. Plural load sensors are used to detect the actual load on the vehicle. The

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load values are input to a processor for storage and evaluation. The total load value is output to the operator via a display to ensure that the maximum legal or safe loading is not exceeded. A running total of the payloads for the specific vehicles is also maintained in the memory as an indication of wear on the vehicle.

9. Juhasz et al. disclose a computer-based on-board vehicle monitoring and recording system of engine parameters. Juhasz et al. is a teaching that many parameters/factors may impact upon the wear of a vehicle and that they should be collectively monitored. The system has a plurality of sensors connected to an on-board recording/monitor for storing (and processing) the measured data. The measured data may then be transmitted via various types of communication links to a remote processing unit for evaluation. When the data is transmitted to the remote location, some identification data (number) would have also been required for subsequent correlation of the data to the proper vehicle. Juhasz et al. is a generic teaching of the monitoring of a plurality of factors/parameters or quantities which may be useful in vehicular analysis and historical storage.

10. It would have been obvious to one of ordinary skill in the art to combine the load monitoring teachings of Gamble, Miller or Griffiths with the vehicular monitoring teachings of Juhasz et al. since both (groups) of references pertain to the monitoring, storing and use of data for analysis of the vehicle's use and

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condition. Juhasz et al. teach the updating of prior load monitoring systems and transmittal of the data to a central or remote location for analysis. The variations in loading would have been indicative of on/off loading events. Also, the type of vehicle would have also impacted upon what data was monitored and what signals were available as indicators. The use of locational, directional or geographical information in a broad sense may have also been useful information for skilled artisans whereas vehicle distribution, routing and scheduling may have also been useful. The transmission of the signal to a remote location could have easily provided location information by triangulating the origin or by input by the operator of the vehicle. It would have been obvious to skilled artisans that numerous quantities along with vehicular load may be monitored at the same time for various reasons depending on the specifics of the vehicle and its use by an operator and/or owner.

11. As per claims 32-36, Gamble and Griffiths both disclose the accumulation of data in historical data base, print-out or total load. Further, the data would from different transducers relating to different quantities would have had to have been correlated together to be useful. Gamble and Griffiths also disclose monitoring the time of the hauls.

12. As per claims 2-9, as above with regards to claims 1, 21-27, 29 and 31-36.

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13. As per claims 11-12, the vehicle may have been loaded in any manner wherein the substantial increase in vehicle load would have been indicative of when material was added. The changes in time of the display of Gamble would have been indicative of the time.

14. As per claims 15-16, Juhasz et al. disclose time tagging of data. The unloading data would be similarly acquired as the loading data by changes in the load.

15. As per claims 17-19 and 28, as above with regards to claims 1-9, 21-27, 29 and 31-36.

REMARKS

16. Claims 10, 13, 14 and 30 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

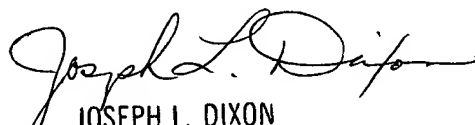
17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

18. The proposed drawing corrections are approved.

21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joe Dixon whose telephone number is (703) 308-2005.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0754.

JD/MS  
June 04, 1991

  
JOSEPH L. DIXON  
PRIMARY EXAMINER  
ART UNIT 234